



# SCIENCE LAUNCHING

ON NORTHROP GRUMMAN CRS-17 MISSION  
TO THE INTERNATIONAL SPACE STATION

1  
00:00:00,166 --> 00:00:03,269  
WHY ARE WE SENDING  
TUMOR CELLS

2  
00:00:03,269 --> 00:00:05,638  
A HYDROGEN SENSOR

3  
00:00:05,638 --> 00:00:08,908  
AND SKIN CELLS TO  
THE SPACE STATION?

4  
00:00:09,709 --> 00:00:15,548  
DOZENS OF NEW EXPERIMENTS WILL SOON  
ARRIVE AT THE INTERNATIONAL SPACE STATION

5  
00:00:15,548 --> 00:00:20,920  
FOR THE BENEFIT OF HUMANITY AND  
FUTURE MISSIONS TO SPACE

6  
00:00:20,920 --> 00:00:26,893  
LET'S TAKE A LOOK AT WHAT'S ON BOARD  
NORTHROP GRUMMAN'S 17TH CARGO MISSION

7  
00:00:26,893 --> 00:00:29,062  
XROOTS

8  
00:00:29,062 --> 00:00:34,100  
A NEW PLANT GROWTH SYSTEM WILL TEST  
HYDROPONIC AND AEROPONIC TECHNIQUES.

9  
00:00:34,100 --> 00:00:39,739  
RESULTS MAY AID THE DEVELOPMENT OF LARGER SCALE  
VEGETABLE CROP SYSTEMS FOR SPACE HABITATS.

10  
00:00:39,739 --> 00:00:42,008  
MICROQUIN 3D TUMOR

11  
00:00:42,008 --> 00:00:46,112  
HUMAN BREAST AND PROSTATE TUMOR CELLS WILL GROW

IN A 3D MODEL MADE POSSIBLE BY MICROGRAVITY.

12  
00:00:46,112 --> 00:00:51,818  
RESULTS COULD HELP IMPROVE DRUGS  
THAT TARGET CANCER CELLS.

13  
00:00:51,818 --> 00:00:53,887  
ADVANCED HYDROGEN SENSOR  
TECHNOLOGY DEMO

14  
00:00:53,887 --> 00:00:58,491  
LONGER-LASTING SENSORS WILL BE TESTED IN  
STATION OXYGEN GENERATING SYSTEMS

15  
00:00:58,491 --> 00:01:03,963  
WHICH COULD BENEFIT FUTURE SPACECRAFT.

16  
00:01:03,963 --> 00:01:06,299  
SPACE AS-LIB

17  
00:01:06,299 --> 00:01:11,037  
RESEARCHERS WILL MOUNT A SOLID-STATE  
LITHIUM ION BATTERY OUTSIDE OF THE STATION

18  
00:01:11,037 --> 00:01:15,975  
TO DEMONSTRATE THIS TECHNOLOGY'S SAFETY  
AND RELIABILITY IN HARSH ENVIRONMENTS.

19  
00:01:15,975 --> 00:01:17,944  
COLGATE SKIN AGING

20  
00:01:17,944 --> 00:01:23,116  
RESEARCHERS WILL EVALUATE ENGINEERED  
SKIN CELLS THAT MAY PROVIDE A MODEL

21  
00:01:23,116 --> 00:01:28,054  
FOR BETTER SKIN PROTECTION  
PRODUCTS BACK ON EARTH.

22

00:01:28,054 --> 00:01:30,190  
SOFIE

23  
00:01:30,190 --> 00:01:35,028  
A NEW COMBUSTION RESEARCH  
FACILITY WILL HOST MULTIPLE STUDIES

24  
00:01:35,028 --> 00:01:40,366  
TO IMPROVE THE FIRE SAFETY  
OF HUMAN SPACECRAFT.

25  
00:01:41,434 --> 00:01:45,371  
THESE EXPERIMENTS WILL JOIN THE  
HUNDREDS OF ONGOING INVESTIGATIONS

26  
00:01:45,371 --> 00:01:48,842  
ABOARD THE  
ORBITING LABORATORY.